

ABSTRACT

A washing machine incorporates a drain pump powered by an electric motor and an electric motor and a variable frequency variable duty cycle pulse width modulated inverter the output of which supplies power to the electric motor, a water level detection system for detecting low washing machine water levels, and a controller which in response to the water level detection system decreases the frequency of the inverter at low washing machine water levels to thereby reduce the effects of ventilation. The motor is driven with the output of the variable frequency pulse width modulated inverter, and the frequency of said inverter is decreased at low washing machine water levels to reduce the effects of ventilation.